

WHAT IS CLAIMED IS:

5 1. A film deposition apparatus comprising:
a stock chamber for loading or unloading a substrata;
a transferring chamber including a mechanism for transferring said substrate; and
a liquid phase film deposition chamber connected to said transferring chamber
through a gate,
wherein said liquid phase film deposition chamber is provided with a mechanism for
oxidizing an element belonging to Group 1 or 2 of the periodic table.

10 2. A film deposition apparatus according to claim 1, wherein an inside of said
transferring chamber is kept under a reduced pressure and said liquid phase film deposition
chamber is filled with an inert gas and is kept under atmospheric pressure or in a pressurized
state.

15 3. A film deposition apparatus according to claim 1, wherein said transferring
chamber is connected to a calcining chamber through a gate, and said calcining chamber is
provided with a mechanism for turning said substrate upside down.

20 4. A film deposition apparatus comprising:
a stock chamber for loading or unloading a substrate;
a transferring chamber including a mechanism for transferring the substrate; and
a liquid phase film deposition chamber connected to said transferring chamber
through a gate,

wherein said liquid phase film deposition chamber is provided with, via a piping, a mechanism for oxidizing an element belonging to Group 1 or 2 of the periodic table.

5. A film deposition apparatus according to claim 4, wherein an inside of said transferring chamber is kept under a reduced pressure and said liquid phase film deposition chamber is filled with an inert gas and is kept under atmospheric pressure or in a pressurized state.

6. A film deposition apparatus according to claim 4, wherein said transferring chamber is connected to a calcining chamber through a gate, and said calcining chamber is provided with a mechanism for turning said substrate upside down.

7. A film deposition apparatus comprising:

- a stock chamber for loading or unloading a substrate;
- two transferring chambers each connected to said stock chamber through a gate;
- a vapor phase film deposition chamber connected to one of said two transferring chambers through a gate; and

a liquid phase film deposition chamber connected to another said transferring chamber through a gate,

20 wherein said liquid phase film deposition chamber is provided with a mechanism for oxidizing an element belonging to Group 1 or 2 of the periodic table.

8. A film deposition apparatus according to claim 7, wherein an inside of said transferring chamber is kept under a reduced pressure and said liquid phase film deposition

chamber is filled with an inert gas and is kept under atmospheric pressure or in a pressurized state.

9. A film deposition apparatus according to claim 7, wherein said transferring chamber is connected to a calcining chamber through a gate, and said calcining chamber is provided with a mechanism for turning said substrate upside down.

10. A film deposition apparatus comprising:
a stock chamber for loading or unloading a substrate;
two transferring chambers each connected to said stock chamber through a gate;
a vapor phase film deposition chamber connected to one of said two transferring chambers through a gate; and
a liquid phase film deposition chamber connected to another said transferring chamber through a gate,
wherein said liquid phase film deposition chamber is provided with, via a piping, a mechanism for oxidizing an element belonging to Group 1 or 2 of the periodic table.

11. A film deposition apparatus according to claim 10, wherein an inside of said transferring chamber is kept under a reduced pressure and said liquid phase film deposition chamber is filled with an inert gas and is kept under atmospheric pressure or in a pressurized state.

12. A film deposition apparatus according to claim 10, wherein said transferring chamber is connected to a calcining chamber through a gate, and said calcining chamber is provided with a mechanism for turning said substrate upside down.

13. A film deposition apparatus comprising:
a stock chamber for loading or unloading a substrata;
a transferring chamber for transferring said substrate; and
an EL material deposition chamber connected to said transferring chamber through a gate,
wherein said EL material deposition chamber is provided with a cell which contains an element belonging to Group 1 or 2 of the periodic table.

14. A film deposition apparatus according to claim 13, wherein an inside of said transferring chamber is kept under a reduced pressure and said EL material deposition chamber is filled with an inert gas and is kept under atmospheric pressure or in a pressurized state.

15. A film deposition apparatus according to claim 13, wherein said transferring chamber is connected to a calcining chamber through a gate, and said calcining chamber is provided with a mechanism for turning said substrate upside down.

16. A film deposition apparatus comprising:
a stock chamber for loading or unloading a substrate;
two transferring chambers each connected to said stock chamber through a gate;

a vapor phase film deposition chamber connected to one of said two transferring chambers through a gate; and

an EL material deposition chamber connected to another said transferring chamber through a gate,

5 wherein said EL material deposition chamber is provided with a cell which contains an element belonging to Group 1 or 2 of the periodic table.

10 17. A film deposition apparatus according to claim 16, wherein an inside of said transferring chamber is kept under a reduced pressure and said EL material deposition chamber is filled with an inert gas and is kept under atmospheric pressure or in a pressurized state.

15 18. A film deposition apparatus according to claim 16, wherein said transferring chamber is connected to a calcining chamber through a gate, and said calcining chamber is provided with a mechanism for turning said substrate upside down.

19. A method of manufacturing a light emitting device, comprising the steps of:
transferring a substrate over which a plurality of pixel electrodes are formed into a liquid phase film deposition chamber;

20 sealing said liquid phase film deposition chamber air-tight to oxidize an element belonging to Group 1 or 2 of the periodic table in said chamber; and
forming a film which contains an organic EL material over said substrate.

20. A method of manufacturing a light emitting device according to claim 19, wherein a spin coating method, a printing method, an ink jet method, or a dispensing method is used in forming said film which contains said organic EL material.

5 21. A method of manufacturing a light emitting device according to claim 19, wherein said film which contains said organic EL material is formed in an atmosphere having an oxygen concentration of 1 ppb or less.

10 22. A method of manufacturing a light emitting device, comprising the steps of:
transferring a substrate over which a plurality of pixel electrodes are formed into a liquid phase film deposition chamber;
sealing said liquid phase film deposition chamber air-tight to oxidize an element belonging to Group 1 or 2 of the periodic table in said chamber;
forming a film which contains an organic EL material over said substrate; and
15 transferring said substrate over which said film has been formed into a vapor phase film deposition chamber to form a conductive film thereon.

20 23. A method of manufacturing a light emitting device according to claim 22, wherein a spin coating method, a printing method, an ink jet method, or a dispensing method is used in forming said film which contains said organic EL material.

24. A method of manufacturing a light emitting device according to claim 22, wherein said film which contains said organic EL material is formed in an atmosphere having an oxygen concentration of 1 ppb or less.

25. A method of manufacturing a light emitting device, comprising the steps of:

transferring a substrate over which a plurality of pixel electrodes are formed into an EL material deposition chamber, said chamber comprising a cell which contains an element belonging to Group 1 or 2 of the periodic table;

sealing said EL material deposition chamber air-tight to oxidize said element belonging to Group 1 or 2 of the periodic table; and

forming an EL layer over said pixel electrodes.

26. A method of manufacturing a light emitting device according to claim 25, wherein a spin coating method, a printing method, an ink jet method, or a dispensing method is used in forming said film which contains said organic EL material.

27. A method of manufacturing a light emitting device according to claim 25, wherein said EL layer is formed in an atmosphere having an oxygen concentration of 1 ppb or less.

28. A method of manufacturing a light emitting device, comprising the steps of:
transferring a substrate over which a plurality of pixel electrodes are formed into an EL material deposition chamber, said EL material deposition chamber comprising a cell which contains an element belonging to Group 1 or 2 of the periodic table;

sealing said EL material deposition chamber air-tight to oxidize said element belonging to Group 1 or 2 of the periodic table;

forming an EL layer over said pixel electrodes; and

